

REMARKS

Reconsideration is respectfully solicited.

Replacement drawings are filed concurrently under separate cover letter.

The specification has been amended to make clarification, as requested by the Examiner concerning the acronym "ff"; a Detailed Description of the Drawings is presented and an ABSTRACT is presented. Furthermore the text of the Examples headings have been amended to refer to the corresponding Figure; the word Illustration remains in the specification to provide antecedence.

Claim 1 has been amended. The range of sodium polyphosphate is based on the language of original claims 1 and 3. Claim 2 has been amended to incorporate amended Claim 1 language. Claim 3 has been amended with respect to syntax. Claim 4 has been amended to incorporate amended Claim 1 language. Claim 5 has been amended with respect to syntax.

Applicants respectfully traverse the rejection of claims under 35 USC §§ 112 and 101. Amendment of the claims is believed to obviate the USPTO's reasons for the rejection.

Applicants respectfully traverse the rejection of claims over US 3,770,468 (D1) is not relevant to novelty or inventive step.

(D1) describes the use and the method to retard the setting of plaster of Paris /mainly gypsum/ by adding certain types of non-calcium based phosphate salts in combination with an ionogenic wetting agent and non-ionogenic wetting agent. In claim 2 we can find sodium tri polyphosphate among other types and a carboxylic acid containing at least 4 carbon atoms and at least one hydroxyl group. The citric acid mentioned there does contain three COOH

groups and one OH group and is a strongly complexing acid. Its structure differs from that of the tartaric acid of the claims.

By comparison, applicants use a **mixture** comprising: of: a.) sodium tri metaphosphate b.) tartaric acid and c.) sodium (tri) polyphosphate if needed.

The mixture contains at least 2 components. Tartaric acid has the formula (HOOC)-CH(OH)-CH(OH)-COOH so it has hydroxyl groups but it does not have the three carboxylic acid groups or the longer main chain of the citric acid.

Since tartaric acid and citric acid are different “carboxylic acids”, they are not identical in their efficacy.

A significant difference Between D1 and applicants' additive is the use of the compound sodium tri metaphosphate which is a slowly soluble phosphate type containing cyclic phosphates.

Applicants advise that they have found that an amount of 0.05 to 0.5 w.-% is advantageous concerning the flexural strength and prolongs open time of the gypsum as well as the press resistance of the gypsum walls manufactured. It was also unexpected that sodium trimetaphosphate could be combined with tartaric acid. The main target of the invention was to control the course of setting and in particular the **end** of the setting process. In the examples it is demonstrated that a mixture consisting only of tartaric acid and sodium trimetaphosphate (example 2.(2) is highly advantageous. In example 4 it is demonstrated that the use of sodium tri metaphosphate in combination with tartaric acid present in an amount of 0,1 w.-% the sodium tri metaphosphate amount can be reduced by 40 % as compared to the amount of sodium polyphosphate while the retarding process remains at an optimum level, especially towards **the end** of the setting period.

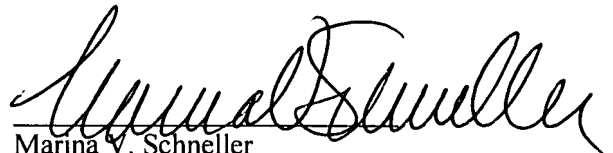
In D1 the main target was to find an additive which improves the mixing of the gypsum with water /wetting/ which seems to be bad due to the high anhydrite III content of the burnt gypsum. Simultaneously the handling of the so treated gypsum should be

maintained “ a malleable mortar” should be achieved here. Therefore it was important have a combination containing a set retarder, a wetting agent and water, which in a certain amount present converts the anhydrite III into hemi hydrate. The additive must therefore be a sprayable solution. DI is silent to the control or prolongation of the end point of the setting process and even it is using a very different mixture for a completely different reason.

An early allowance is respectfully solicited.

Respectfully submitted,

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